DOCUMENT RESUME

ED 127 835 FL 008 003

AUTHOR Holmstrand, Lars
TITLE An Introduction to the EPAL Project. Background, Problems and Design. Pedagogisk Forskning Uppsala, No. 2.
INSTITUTION Uppsala Univ. (Sweden). Inst. of Education.
PUB DATE Nov 75
NOTE 73p.

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS Educational Change; *Educational Experiments; Educational Planning; *Elementary Education; Elementary School Curriculum; *English (Second Language); *Flesh; *Language Instruction; *Language Programs; Language Research; Program Descriptions; Pronunciation; Second Language Learning

ABSTRACT

This report describes the background, aim and design of the EPAL (English in the elementary school) project in Sweden. As background to the project, a survey is included of the increasingly important position of teaching English from the 1940's through the great school reforms of the 50's and 60's. Developments in foreign language teaching in the elementary schools of other countries are reviewed, as well as psycholinguistic and other research which has investigated various aspects of foreign language learning in the elementary grades. The aim of the EPAL project is to make a detailed investigation of the effects of beginning the study of English in the second term of the first grade. The experiment is being conducted in the school district of Vasteras, where an experimental group and a control group, each consisting of 24 classes, are being compared in various areas from grades one through six. The total amount of instruction time during the first six grades is the same in the experiment as in the regular curriculum for grades 3-6. A number of problems connected with the project have developed into subsidiary projects. These include: pronunciation measurements; systematic classroom observations; foreign language and the immigrant child; and learning to read English. (Author/AM)

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LARS HOLMSTRAND

AN INTRODUCTION TO THE EPÅL PROJECT

Background, problems and design.

LÄRARHÖGSKOLAN I UPPSALA - PEDAGOGISKA INSTITUTIONEN

AN INTRODUCTION TO THE EPAL PROJECT

Background, problems and design.

Lars Holmstrand

This report is an English version
of the report: Presentation av EPAL-
projektet. Bakgrund, problem och uppläggning.
Pedagogiska institutionen, Lärarhögskolan
i Uppsala. Rapport nr 54, 1975.

ISBN 91-85250-03-1

Printed in Sweden
Lärarhögskolan i Uppsala
Uppsala 1975

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ABSTRACT

Holmstrand, L. An introduction to the EPAL project. Background, problems and design. *Pedagogisk Forskning Uppsala*, No. 2, 1975, 69 pp.

The report describes the background, aim and design of the EPAL project (English in the elementary school), a project financed by the National Board of Education.

As a background to the project, a survey of how teaching of English from the 1940s through the great school reforms has assumed an increasingly important position within the comprehensive school is included. English is now compulsory for all pupils and starts in grade 3.

Developments in foreign language teaching in the elementary schools of other countries is then reviewed as well as psycholinguistic and other research which has investigated different aspects of foreign language learning in the elementary grades.

The aim of the EPAL project is to make a detailed investigation of the effects of beginning the study of English in the second term of the first grade. The total amount of time for instruction during the first six grades is the same in the experiment as in the regular curriculum for grades 3-6.

The experiment is being conducted in the school district of Västerås, where an experimental group and a control group (which began English instruction in grade 3), each consisting of 24 classes are being compared in various areas from grade 1 through grade 6. Another group of pupils, which started English instruction in grade 4 and will have had fewer total hours of instruction, has also been investigated in less detail.

The report concludes with a summary of four special investigations which are being conducted within the general framework of the project.

INTRODUCTION

ORIGINS OF THE PROJECT AND WORK DURING THE INTRODUCTORY STAGES

The initiative behind the EPAL project came from modern languages methods lecturers at the Uppsala School of Education. During the autumn of 1968 they contacted the then Assistant Professor at the Department of Educational Research of Uppsala University, Karl-Georg Ahlström, who was in charge of a special research department for language learning. An initial planning meeting was held in December 1968 by the lecturers, Ass. Prof. Ahlström and the writer. Apart from reasons for English studies in comprehensive school beginning at an earlier juncture, discussions at this meeting also centred round the status of second and third foreign languages or, as they are termed in Swedish, B and C languages. Rough guidelines were drawn up for studies of various starting points and time allocations for the teaching of modern languages, and Ass. Prof. Ahlström was asked to submit a project description to the National Board of Education, together with an application for a grant towards studies primarily concerning an earlier commencement of English teaching. The plan subsequently drawn up for a project concerning the teaching of English at the junior level of comprehensive school (EPAL) was presented in the School Research News Letter 1969:5, published by the National Board of Education.

The application for a grant was sympathetically received by the National Board of Education, which placed an initial grant at the disposal of the EPAL project with affect from the fiscal year 1969/70. At the same time the Department of Educational Research at the Uppsala School of Education came into being with the appointment of Karl-Georg Ahlström to a professorship. During this introductory stage, the work of the project followed the guidelines mentioned above. A reference group comprising Professor Ahlström (tutor) and the three subject experts and lecturers Sten G. Hellström, Sven G. Johansson and Per Malmberg met regularly to plan and direct the work to be conducted by a working group. To begin with, the working group comprised two teachers, namely Kerstin Sundin and Bo Janson (who were mainly responsible for the design of teaching materials), Lennart Linell, B.A., who served as project leader starting in 1970/71, and Lars Holmstrand, M.A., who was primarily responsible for planning and for measurements of various kinds.

Comprehensive planning work has conducted during the introductory phase of the project both by the working group and by the reference group. A

number of points, ranging from predominantly practical problems to more complex theoretical issues, were discussed in detail at the frequently held project meetings before decisions were taken. The most important problems discussed at these meetings concerned the allocation of the total number of English periods between grades which was both interesting and amenable to investigation, the choice of experimental [illegible] and experimental groups, and the plan of comparison or the "design" of the investigation. During this introductory phase of the project, a very great deal of work also centred round the planning of the English teaching materials which it was decided would have to be constructed in order for the project plans to be realized.

As the project advanced, it was found that there were various subsidiary problems which were closely bound up with the main topic of consideration and which would be worth going into. Thus Lillemor Lewrén, B.A., embarked on a study of the development of English pronunciation skills among children, and Lena Rehnström, B.A., conducted classroom observations of the teaching process in various experimental groups.

The teaching material designers, Kerstin Sundin and Bo Janson, also found interesting problems to investigate. One of the most interesting problems of method which they had to solve while working on the teaching material concerned the best introduction to the reading of English. They developed a model of reading introduction which was later tried out in various ways in the experimental groups. Lennart Linell eventually came to concentrate above all on the situation of immigrant children, a topic for which the large proportion of immigrant children living in Västerås (where the EPAL project is being conducted) provides ample research material.

PURPOSE AND ARRANGEMENT OF THIS REPORT

The purpose of this report is to provide a general description of the background to EPAL project and an account of its development during the introductory planning stage.

By way of a background, the report begins with a short history of the teaching of modern languages in compulsory school in Sweden from the 1940s onwards. Consideration is then given to the early commencement of foreign languages in other countries, including the FLES (Foreign Languages in the Elementary School) movement in the U.S.A. and the French Project in England. This is followed by a presentation of the

arguments put forward in favour of the introduction of foreign language studies at elementary school levels. The background description then concludes with a survey of research in this field.

It should be borne in mind that the chapter concerning the background to the EPAL project refers to conditions up to and including the end of the 1960s (when the project began).
Subsequent developments will be dealt with in future reports.

The next chapter is concerned with the research problems which had to be tackled in the course of the project. These concerned the effects to the early commencement of English studies in the Swedish school system.

This chapter starts with a description of the choice of a suitable reallocation of the teaching time available for English prior to a definition of the aims of the project.

The chapter concerning the design of the project describes the choice of experimental area, experimental groups, plan of comparison and control variables. The construction of teaching materials undertaken as part of the project is also touched on.

The report ends with a brief description of the various subsidiary investigations coming within the framework of the EPAL project or related to it.

8.

BACKGROUND

THE TEACHING OF FOREIGN LANGUAGES IN COMPULSORY SCHOOL IN SWEDEN FROM THE 1940s ONWARDS

The advent of the EPAL project may be regarded as a natural continuation of the development of modern languages teaching in the Swedish compulsory school during the past decades. With the establishment of the present comprehensive school, a growing proportion of teaching activities came to centre round foreign languages. Between the 1940s, which were dominated by the activities ot two major commissions on future education policy, the 1940 and 1946 School Commissions, and the present day, the role of foreign languages - particularly English - in schools has been radically transformed. Whereas previously it was reserved for a limited number of students (who either went on to higher schooling after elementary school or else came from school districts which applied for and obtain special permission from the National Board of Education for the arrangement of foreign language studies), the study of English is now compulsory for all pupils in grades 3-9, making English one of the most important proficiency subjects on the timetable of comprehensive school today.

A number of important stages in this development process are worth studying more closely in order to fill in the background to the EPAL project. A retrospect will therefore be given here of the status of foreign languages in Swedish compulsory schools from the 1940s onwards*.

A. The 1940 and 1946 School Commissions

Conditions in the early 1940s

The elementary school syllabus at the beginning of the 1940s did not enjoin the study of any foreign language, though foreign language studies were conducted in a number of school districts which had applied for and obtained special permission from the National Board of Education for the arrangement of English or German lessons. Usually these lessons took place in grade 7 or grade 8 and totalled four or five periods per week.

* This account will be purely descriptive, and accordingly will not include any detailed analysis or interpretation of the course of events.

It should be emphasized that these amenities were only provided in a fraction of the total number of school districts in Sweden, although a distinct increase could be observed between 1933 (27 districts) and the school year 1942/43 (61 districts). (SOU 1944:21, pp. 68-71).

Reasons for the introduction of foreign languages

Both the 1940 and the 1946 School Commissions were dissatisfied with the state of affairs described above. Thus the 1940 Commission observed in its report, presented in 1948, that "the absence of foreign language is, for the citizen, a very serious deficiency in the subject repertoire of compulsory schools" (SOU 1948:27, p. 7), while the 1940 Commission remarked as follows:

> "In our opinion, with the passage of time, increasingly powerful arguments have been put forward in favour of the inclusion of foreign languages in the elementary school syllabus." (SOU 1946:11, p. 282).

The report of the 1940 Commission continues:

> "In general, knowledge of foreign languages is of great value to the individual, irrespective of his or her position in society, as witness not only the language teaching hitherto established in elementary schools but also the large audiences attracted by broadcast language teaching and the large numbers of people attending languages courses run by various educational associations and study circles. Moreover, both the cultural and material development of our society and the various lively connections between Sweden and other countries under normal conditions have generated a need for the knowledge of foreign languages even among sections of the population which are unable or unwilling to let their children continue their education beyond the period of compulsory schooling." (Ibid).

Reference was also made to the need for a knowledge of foreign languages in various branches of working life, in the sports movement, scouting, trade union activities of various kinds and political associations.

The 1946 School Commission put forward similar arguments:

> "If a modern language - the most obvious choice being English - should be made obligatory in compulsory school, this would do a great deal to bridge a traditional educational gap. A window onto the world would be opened for the great majority of the population. The need for knowledge of at least one foreign language is becoming more and more pronounced in working life and in the activities of voluntary organizations." (SOU 1948:27, p. 7).

Reasons for choosing English

As has already been intimated, English was the language that people had in mind when they spoke of obligatory language studies. There were probably many reasons for the self-evident pre-eminence of English during the 1940s, but the current state of language teaching in elementary schools* must have been a very weighty consideration.

> "So far English had been taught in about 90 per cent of the language-studying classes and German in no more than about 10 per cent." (SOU 1946:11, p. 284).

The reasons advanced by the 1940 Commission for this heavy preponderance of English studies included the following.

> "Educationally speaking, English, with its simpler grammatical structure, has been considered a more suitable beginners' language than German. The need for a knowledge of English has been found to be on the increase in this country, and English is more widely spoken internationally than any other language. English bulks far larger than any other language in voluntary educational activities in this country. All of these considerations point in favour of English being made the first language to be studied." (Ibid).

The Commission also noted that proposals were afoot for the replacement of German by English as the beginners' language for junior secondary school, inferring that English should be the first language to be introduced in elementary school as well.

The proposals made by the School Commissions

There were a number of fundamental issues on which the members of the 1940 School Commission were unable to agree. This was above all the case on the subject of differentiation, i.e. the question as to whether pupils should be divided into different lines. Opinions were also divided concerning the commencement of English. The majority favoured English in grades 5 and 6 for pupils intending to go on to junior secondary school and English as from grades 7 and 8 for other pupils. (In other words, an early differentiation was advocated). The minority, on the other hand, wanted all pupils to study English from grade 6. (SOU 1946:11).

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* As mentioned earlier, certain school districts had obtained permission from the National Board of Education to organize the teaching of foreign languages.

However, the proposals made by the 1940 School Commission were more or less overruled by the 1946 School Commission, which in 1948 submitted a main report outlining a nine-year system of comprehensive schooling. In the chapter of this report dealing with the goals of the school system, the 1946 Commission presented its proposals concerning English teaching in the following terms:

> "Vocational training and working life, the activities of voluntary organizations, travel and cultural requirements today would all seem to indicate that every Swedish man or woman needs at least an elementary knowledge of the major international languages. The reasonable choice, therefore, is for pupils attending compulsory school to be taught English.
> The Commission proposes that English be introduced as a regular school subject as from grade 5 and that the study of English be made compulsory up to and including grade 7." (SOU 1948:27, p. 29).

Experimental activities

The report of the 1946 Commission led to a resolution of principle by the Riksdag in 1950 for the introduction of the nine-year comprehensive school[*] First, however, this resolution provided for a period of experimentation[**]. At the request of the 1946 Commission, fourteen local authorities (municipalities) had already obtained Government permission for the commencement of experimental activities in the school year 1949/50, and following the 1950 resolution of principle, the scale of such activities rapidly increased, so that by the school year 1961/62, which was the terminal year of the experimental period, practically half the children of school age in Sweden were attending experimental schools. (Isling 1974, p. 101).

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[*] The various reports of both Commissions had previously been circulated for comment and extensively debated. Cf SOU 1949:35 and Isling (1974).

[**] Owing to a conflict of opinions within the special Riksdag committee set up to study the matter, a compromise statement was drawn up which, however, was variously interpreted, since the committee recommended the introduction of a nine-year comprehensive school "insofar as the intended experimental activities point to the suitability thereof." (SäU 1950:1, p. 179). The opponents of the comprehensive school felt that a new school system should be introduced only if the experimental activities proved the comprehensive school to be superior to the old system, while the advocates of the comprehensive school merely regarded the experimental scheme as a means of settling points of detail. The resolutions passed by the Riksdag in 1956 and 1957 were a victory for the pro-comprehensives.

Under the experimental scheme, English was compulsory for grades 5-7[*], in keeping with the proposals made by the Commission. According to "Time schedules and main items of instruction for the experimental nine-year comprehensive school, issued by the National Board of Education for the school years 1955/58" (commonly abbreviated Toh), English was allotted four periods per week in grade 5, six in grade 6 and 3.5 in grade 7; see Table 1. In grade 8, English was an option for which four weekly periods were allocated, while in certain cases in grade 9 it was allotted three periods per week. In class 9g, however, which was the preparatory class for upper secondary school, English was compulsory and carried three periods per week (Ibid., pp. 24-25).

Elementary schools were also given the opportunity of providing English lessons in grades 5-7.

The temporary time schedules for English issued in 1951 allotted five periods per week for the teaching of the subject in grades 5-7. (Current News from the National Board of Education 1951:13-14, p. 191). The 1955 Elementary School Curriculum (U 55) fixed the total numbers of English periods at four periods per week in grade 5, six periods per week in grade 6 and four periods per week in grade 7 (pp. 45-46)[**]. The eight-year and nine-year elementary schools were also allowed to provide English lessons in grade 8 and grades 8-9 respectively, in which case three periods per week were allocated.

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[*] With the exception of certain pupils who were unable to assimilate the instruction. The proposals made by the special committee were regarded: "Although as a rule all pupils should be given the opportunity of studying English, if it transpires that continued participation is not producing the intended progress, the pupils should, following a test period which may vary in duration as between different groups of pupils, be occupied with other subjects in which they can derive greater benefit from the instruction received." (SäU 1950:1, p. 176).

[**] A time schedule was also provided for classes in which, following a resolution by the local education authority, no English lessons were to be provided.

The following table is a summary of the above mentioned English time schedules for grades 5-7.

Table 1. English time schedules for grades 5-7 of comprehensive school as per Toh and for elementary school as per Current News from Board of Education 1951 and U 55.

	Period per wk Grade		
	5	6	7
Comprehensive school (Toh)	4	6	3.5
Elementary school (Current News)	5	5	5
Elementary school (U 55)	4	6	4

Questions of timing

The question of the most suitable juncture at which to begin the teaching of modern languages has been a constantly recurring problem in connection with reforms of the Swedish school system. There has been no shortage of viewpoints from different quarters, and often there has been quite a considerable conflict of opinions. Thus in one of its reports the 1940 School Commission had the following observation to make:

> "In many places, not least among language teacher themselves, it has long been contended that the teaching of foreign languages should begin at the earliest possible stage so as to achieve good results, and that to this end languages should be allotted a fairly large number of periods per week in relation to other subjects. Others again have contended that, if the pupils were to begin with a reasonably comprehensive and fundamental course in their native language and their studies of foreign languages deferred until a more mature age, the same results could be expected from language instruction with a somewhat smaller allocation of weekly periods." (SOU 1944:21, p. 267).

The 1946 Commission observed that "the best juncture for the commencement of the various languages is a much debated question of pedagogics." (SOU 1948:27, p. 157). The Commission felt that due heed should be given to the known facts of linguistic maturity, and it maintained that, according to the language psychologists, children could assimilate foreign languages at far earlier ages than had ever been attempted in Swedish school The Commission also made the important observation that the timing of language studies depended on "the goal defined and the methods used", and continued:

> "If the aim is complete bilingualism and if direct methods are adopted, instruction can already be started at the age of three years. If the aim is to familiarize the pupils with

> the foreign language but with a clear preponderance in favour their own language, the study of the foreign language can start when the children's knowledge of their own language is firmly established (at the age of six). If on the other hand the aim is merely to equip the children with an auxiliary language, and if to this end methods are employed which incorporate the study of grammar, studies must be postponed until the children are ready to cope with more abstract combinations (between the ages of eleven and thirteen)." (Ibid.).

In the 1950 Bill concerning the introduction of the nine-year comprehensive school on an experimental basis, the Minister responsible (Josef Weijne) also had something to say concerning the timing of language studies. Recalling the importance of "the method of language teaching" he presumed that "a preeminently grammatical method" at beginners' level (in grade 5) would demand too much of the pupils' capacity for abstract thought. But he went on to say the following:

> "However, the shift of emphasis in language teaching proposed by the School Commission puts the matter in a different light. The arguments in favour of early language teaching which utilizes the imitative stage of childhood are growing in strength. If English is made the first language of study, I do not see why there should be any psychological misgivings about instruction being started in grade 5 of comprehensive school." (Prop. 1950:70, pp. 219-220).

Goals and methods

As the 1946 School Commission observed, the most suitable juncture at which to commence the teaching of foreign languages depends on the goals and methods adopted. The School Commission thought that a change of emphasis was required where the goals of language teaching were concerned. "The main emphasis at all school levels should be on reading ability."*. The "ability to understand foreigners and oneself participate in conversations with them" is accorded second place (SOU 1948:27, p. 29). On the other hand little importance was attached to the ability to write the foreign language:

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* Among other things, this is justified in the following terms: "The ability to read fiction and non-fiction without difficulty is essential to university and other post-secondary studies, and the same applies in the context of general education. The ability to read the foreign language is most important in working life and for the purposes of voluntary organizations." (SOU 1948:27, p. 29).

> "..... one hardly ever has any use of the ability to translate a text word for word from the native language into the foreign language, a skill to which a tremendous amount of effort is devoted in our present scheme of language teaching." (Ibid.).

The 1940 School Commission had also advocated goals and methods of language teaching in keeping with the above, thereby rejecting a more "traditional" approach that strongly emphasized grammar and translation practice. The School Commission stressed that priority should be given to practical language skills, on which account traditional language teaching was given the following reprimand: "Grammar should only be a means to the understanding and use of the language, and not the goal of teaching." (SOU 1946:15, p. 152). Instead the principal aim should be "for the pupils to acquire a certain proficiency in reading the foreign language and for this proficiency to be developed through their independent efforts." (op. cit., p. 149).

B. The 1957 School Commission and Lgr 62*

The 1957 School Commission was set up to make a final study of questions of school policy and to put forward proposals based partly on the experience derived from the experimental nine-year comprehensive school. The main report of this Commission, on the subject of comprehensive schooling, was presented in 1961.

The teaching of English as part of the experimental activities

In its survey of the experimental nine-year comprehensive school, the Commision observed that

> "..... compulsory English has within a very short time been accepted by pupils, parents and teachers alike. In the experimental comprehensive school, English is compulsory from grades 5 to 7 inclusive, and it has been found that in subsequent grades more than - four-fifths of the pupils choose English as an optional subject. There can have been few cases of a new subject on the curriculum gaining such rapid acceptance by all concerned." (SOU 1961:30, pp. 88-89).

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* Lgr 62 = the 1962 Comprehensive School Curriculum. The title of the 1969 Comprehensive School Curriculum is similarly abbreviated as Lgr 69.

In the section of its report dealing with foreign languages in comprehensive school, the 1957 Commission referred to the encouraging results of English as a compulsory subject: "this instruction has undoubtedly been successful." Observing that the new subject had come to stay, the Commission turned to consider the question as to whether comprehensive school English should start in grade 5 or earlier. (SOU 1969:30, p. 297).

English for earlier grades

The 1957 Commission began by examining the reasons which had led the 1946 Commission to propose the commencement of English studies in grade 5. Among other things it was observed that the current method of language teaching "with a fairly large proportion of grammar and all the demands on the pupils' capacity for abstraction which this implies" was thought to be one reason for not proposing an earlier start. "The shortage of teachers qualified to teach English in compulsory school was also taken as a reason for not starting English before grade 5." (op. cit., p. 298).

The 1957 Commission felt that conditions had now changed.

> "The current goal of language teaching in compulsory school and the method which has now been generally adopted for this teaching both give priority to the pupils' ability to understand the spoken and written language. In addition, certain pupils are to learn to make themselves understood in speech and writing. This shift of emphasis has brought about a radical transformation of teaching methods in recent years. The most important characteristic of this transformation can be seen in a transition at lower levels to teaching methods which make better use of the pupils' imitative capacity. This in turn speaks in favour of the commencement of teaching before the stage where the desire and ability to imitative begin to decline." (Ibid.).

The proposals made by the 1957 School Commission

On the strength of the above arguments, the 1957 School Commission proposed that English studies should start in grade 4 with two periods per week (which should be divided up wherever possible into not less than four lessons per week). The number of periods in grade 6, where both elementary school and the experimental comprehensive school had had six periods per week, could then be reduced, it was thought, in favour of other subjects. The following remarks were also made with reference to the proposal:

> "An even earlier start to the first foreign language, which the Commission believes to be both desirable and possible per se, is probably impractiable for the time being, due to the shortage of junior level teachers qualified to each English." (SOU 1961:30, p. 298).

The Compulsory Education Bill

The Compulsory Education Bill (Prop. 1962:54) included a summary of the comments received on the report of the 1957 Commission. It was observed that the proposal concerning the teaching of English in grade 4 had aroused considerable interest. "Reactions on this point have been strikingly positive, and the overwhelming majority of authorities and organizations consulted have seconded the proposal." (p. 159). It was also noted that some of those consulted had actually recommended the commencement of English studies in grade 3. Thus LO (the Confederation of Swedish Trade Unions) advocated compulsory English from grade 3 to grade 9 inclusive, on the grounds that "psychologically and educationally, this would have the advantage of giving an easy approach to the foreign language by means of the earliest possible introduction."

The Minister responsible advocated compulsory English for grades 4-7, but he added: "I assume it will soon be thought opportune to experiment with the teaching of English in earlier grades." (op. cit., p. 271).

Lgr 62, goals and methods

In 1962 the Riksdag resolved in favour of the general introduction of the comprehensive school system in accordance with the guidelines laid down by the 1957 School Commission. The 1962 Comprehensive School Curriculum (Lgr 62) adopted in this connection includes various turns of phrase on the subject of goals and instruction for the teaching of foreign languages which reflect the change referred to by the 1957 School Commission (cf. p. 17, supra).

> "Language teaching in comprehensive schools must be based on the fact that language is first and foremost a means of spoken communication between individuals." (Lgr 62, p. 194).

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1 The allocation of periods for English was as follows: 2 periods per week in grade 4, 5 in grade 5 and 4 in grades 6 and 7 respectively. (Lgr 62, p. 111).

It was also pointed out that instruction should be conducted in the foreign language. The goals of the teaching of foreign languages were defined as follows:

> "The purpose of instruction in English, German and French is to familiarize the pupils with a limited, central repertoire of words, idioms and grammatical patterns in those languages and to lay the foundations of good pronunciation, so that the pupils can apprehend and understand clear speech, read and understand simple texts, express themselves in simple, everyday situations and to some extent express themselves in writing. The pupils are also to be acquainted with the culture and living conditions of the peoples concerned." (p. 190).

C. The 1967 curricular review, the 1968 Bill and Lgr 69

Plans for a continuous process of curricular review already existed when the resolution for the introduction of the comprehensive school system was passed in 1962. Notice of the impending review was given by the then Deputy Director General of the National Board of Education, Jonas Orring, addressing delegates at the TCO "Education Days" on November 6-7, 1965 (TCO: the Swedish Central Organization of Salaried Employees). Shortly afterwards a working group was set up within the National Board of Education. In November 1967 this group, known as the LÖ Group, presented a draft revision of the Comprehensive School Curriculum.

Orring's address in 1965 included the following statement concerning the first foreign language.

> "Moreover, experience has shown that general linguistic education should now be increased and broadened. Now that 93 per cent of pupils in grades 8 and 9 of comprehensive school are voluntarily taking English, there is no longer any call for the retention of this language as an option. The question also arises - though in this case the answer is less clear - whether the time will not soon come for the commencement of the first language earlier than in grade 4, subject to an appropriate adjustment of teaching methods. The experiments involving the teaching of English in grades 1-3 have been highly instructive in a positive sense. If the receptivity of pupils in the earliest grades is utilized for the teaching of the first foreign language, time and scope will thereby be gained for other urgent priorities in subsequent grades, without any detrimental effects on achievements and standards." (Orring 1965, p. 15).

A memorandum compiled at the National Board of Education adopted "an earlier commencement of English studies than at present, preferably in grade 3 or even in grade 2" as a working thesis for curricular reform with respect to foreign languages*. (Cullert 1966, p. 14).

The proposals put forward by the LÖ Group contained the following pronouncement concerning the teaching of English:

> "The need for greater proficiency within a broad practical sphere has gradually become more and more pressing. More particularly, the ability to communicate with others both in Swedish and in one or more foreign languages has acquired added importance."

Moreover:

> "None would deny the fundamental importance of basic language skills to the personal development of the individual. Given the overriding goals of comprehensive school, therefore, it is only natural for this curricular review to result in a reinforcement of proficiency generating instruction for all pupils attending comprehensive school." (Skolöverstyrelsen - the National Board of Education - 1967, pp. 24-25).

The LÖ Group advocated the commencement of English studies in grade 3 and proposed that English should remain a compulsory subject up to and including grade 9.

In the subsequent Bill to the Riksdag (Prop. 1968:129), which was largely based on the proposals by the LÖ Group, it was observed that practically all the authorities and organizations consulted, including LO, TCO and SACO (SACO: the Swedish Confederation of Professional Associations), had seconded the proposal for compulsory English from grade 3.
"Several of those consulted .... have questioned whether English could not be started before grade 3." This question was raised, for instance, by LO and SACO. (Prop. 1968:129, p. 40).

The earlier commencement of English in comprehensive school was presented in the following terms:

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* A great deal of this work was done by SPA 3 (Educational Working Group No. 3 at the National Board of Education), which provided the LÖ Group with working material.

> "The 1962 comprehensive school reform made English a compulsory subject as from grade 4. On that occasion the Minister responsible referred to the possibility of English being introduced in earlier grades on an experimental basis. (Prop. 1962:54, p. 271). Experimental activities of this kind have been conducted and the results have been encouraging. I agree with the authorities and organizations consulted that there is a great deal to gained by starting the study of foreign languages at junior level and that this, coupled with the establishment of English as a compulsory subject at senior level, will give all comprehensive school children an opportunity of learning the language thoroughly." (p. 67).

The Minister also referred to the possibility of English studies commencing prior to grade 3 in certain cases:

> "Local education authorities should be given the opportunity of effecting minor time schedule adjustments between grades, primarily within the various school levels. For instance, they should be free to resolve in favour of English studies commencing before grade 3. However, any such alterations must be accommodated within the framework of the total number of periods allotted for the subject." (p. 70).

THE EARLY TEACHING OF FOREIGN LANGUAGES IN OTHER COUNTRIES

As has been shown in this brief historical survey of the teaching of foreign languages in the Swedish compulsory comprehensive school from the 1940s onwards, the commencement of English studies has gradually been shifted to earlier grades. Various arguments put forward in support of the thesis that language studies should start at an early age have been referred to here, but attitudes in Sweden would also appear to have been influenced by the fact that languages were being taught at early stages of schooling in many other countries. Particular influence was probably exerted by developments in the USA and Western Europe, where the question of early language studies was closely debated. The teaching of foreign languages in elementary school has become very common practice in the USA since the mid-1950s and in England since 1964.

More recently, early language teaching has become quite common practice in other countries as well. Thus Stern (1967) presents available particulars for 1962 from 45 countries or regions. In 32 of these, foreign languages were taught at "primary level", i.e. below the age of ten, although the actual extent of this instruction varied a great

deal, ranging from limited experiments or individual private schools to regular instruction for the entire country. (p. 28 ff).

In the section which now follows, a short account will be given of the FLES movement in the United States and the French Project in England.

A. "Foreign Languages in the Elementary School" (FLES) in the U.S.A.

Before the 1950s there were only a few places in the USA where foreign languages were taught in elementary school*. Normally language studies would begin at secondary level in class 9 (age 14 years), continuing for no more than two years as far as the majority of students were concerned.

In a much publicized address to teachers of modern languages in 1952, the then U.S. Commissioner of Education referred to the need for the study of one foreign language in elementary school, and a national conference on the role of modern languages in American schools was held in 1953**. At the conferences subsequently held by the Modern Language Association (M.L.A.), various groups of experts closely discussed the question of an earlier commencement of modern langauge studies, and in 1956 M.L.A. gave the FLES movement its official support.

The passing of the National Defense Education Act in 1958 provided additional support for the teaching of foreign languages, among other things because large financial resources were made available for the training of language teachers, the purchase of language laboratories etc. In 1962 the proportion of students at elementary level being taught foreign languages was still small - "not more than 5 per cent" according to Stern (1967, p. 49). However, numbers rose steadily, and Levenson & Kendrick (1967) estimated the total number of elementary school children studying a foreign

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* E.g. in Cleveland since 1922, in San Antonio since 1940, in Los Angeles since 1942.

** The speech by the then U.S. Commissioner of Education, Dr. Earl J. McGrath, on May 3, 1952 has been consistently rated in the literature on FLES as a highly important event. Thus Th. Andersson: "The effect of this pronouncement by an educator who was not a teacher of languages was electrifying, and the fact that the number of programmes begun in 1963 almost equalled the number of durable programmes begun since 1921 is, I think, to be attributed to the action taken by the Commissioner." (Andersson 1955, p. 183).

language at over 6 million*. Donoghue (1969) quoted the following figures, based on statistics for December 196?: FLES had by then been established in about 95 per cent of the major public school systems (those having more than 100.000 pupils), in the majority of the medium sized ones and in 50 per cent of the small ones (those having 12.000 - 25.000 pupils each).

B. "French in the Primary School" in England**

"French in the Primary School", "the Primary French Pilot Scheme", "the Pilot Scheme", "the French Project" and sometimes even "the Nuffield Project" are all different designations for a large scale experiment conducted in England and involving the commencement of a foreign language (French) by pupils age 8. The project, which began in 1963, was based on the mutual collaboration of the Nuffield Foundation, which attended to the preparation of suitable teaching materials, and the Ministry of Education, which was responsible for the introduction of the new subject in schools, the direction of the experiment and the training of the teachers involved.

The evaluation of the experiment was entrusted to NFER (the National Foundation of Educational Research in England and Wales).

The principal aim of the experiment was to find out in what circumstances it would be possible to consider the universal introduction of a modern language in English primary schools and also to ascertain the implications of such a measure for pupils, schools and teachers. Among other things the plan was to investigate whether the introduction of French in primary school would benefit or inhibit other teaching and the intellectual development of the pupils, whether there were levels of ability at which the teaching of a foreign language was of doubtful value and whether greater command of a foreign language could be achieved by starting it when the pupils were only eight instead of waiting until they were eleven.

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* Levenson & Kendrick open their preface to Readings in Foreign Languages for the Elementary School as follows: "Foreign language teaching in the elementary schools can now be seen as a genuine revolution in American education. This development, commonly referred to as "FLES", has made dramatic advances in recent years. As of now, it is estimated that there are more than six million American elementary school children studying a foreign language."

** The following description is partly based on Burstall (1967, 1969).

Altogether under this project, three "cohorts" totalling some 18.000 children have now been followed up for a number of years, from 1964 onwards. It is worth emphasizing that the French Project was a very large scale venture, since before it started there was very little French teaching going on in primary schools.

PSYCHOLINGUISTIC AND OTHER ARGUMENTS IN FAVOUR OF THE EARLY TEACHING OF FOREIGN LANGUAGES

Of course, the schemes described above were not the result of casual impulses. The early study of foreign languages in schools was a topic of close debate, especially in the U.S.A. and Western Europe. From many quarters, a number of different arguments were propounded in favour of more widespread and earlier language teaching. The psycholinguistic arguments concerning the advantages of starting foreign languages as early as possible in school have probably been particularly important, not least in Sweden, where they would appear to have secured widespread approval of the idea of language studies being made to begin at progressively earlier junctures. A summary will therefore be given in the following pages of some of the arguments and viewpoints propounded concerning the early commencement of language studies in the U.S.A. and Western Europe.

A. Psycholinguistic reasons

One of the principal foundations of the FLES movement in the U.S.A. was the arguments and recommendations concerning the earlier teaching of modern languages put forward at a conference held by M.L.A. in 1956. This conference issued the following statement concerning the optimum age for beginning the study of a second language:

> "The optimum age for beginning the continuous learning of a second language seems to fall within the span of ages 4 through 8, with superior performance to be anticipated at ages 8, 9 and 10. In this early period the brain seems to have the greatest plasticity and specialized capacity needed for acquiring speech. The specialized capacity includes the ability to mimic accurately the stream of speech (sounds, rhythm, intonation, stress etc.) and to learn and manipulate language patterns easily." (Levenson & Kendrick 1967, p. 58).

One reason for the argument concerning the superior plasticity of the brain being put forward on this occasion was that the conference was attended by the neurophysiologist Wilder Penfield, who has expressed similar viewpoints in other connections on the strength of his findings concerning the phys-

iology of the brain*.

Penfield also employed another type of argument in favour of the early commencement of the teaching of foreign languages, referring to the ease with which children in certain conditions had assimilated one or more foreign languages in a natural and relatively unconscious manner. Thus the quoted the following instance:

> "A child who is exposed to two or three languages during the idea period for language beginning, pronounces each with the accent of his teacher. If he hears one language at home, another at school, and a third, perhaps, with a governess in the nursery, he is not aware that he is learning three languages at all." (Penfield 1959, p. 253).

Similar arguments were put forward by Stern (1964), who was convinced of the progress to be made by attempting to integrate the learning of a second language with "the timetable of development". He also pointed out that an astonishing linguistic growth takes place for a period of about two years during the first five years of life, and that this is a highly efficient process of language learning in several respects. He continued:

> "If the child happens to find himself in a bilingual or multilingual milieu more than one languages seem to be acquired with no more difficulty than one." (op. cit., p. 96).

He added:

> "The recent measures to introduce a second language into childhood education are to a large extent based on the conviction that within the first decade it is still possible to capture the language learning abilities of the early years which gradually decline." (Ibid.).

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* In Speech and Brain-Mechanism (1959) by W. Penfield and L. Roberts, Penfield refers among other things to the remarkable re-learning in a child following the destruction of the speech areas in the dominant left half of the brain as a result of injury or illness. "Child and adult, alike, may become speechless after such an injury, but the child will speak again, and does so, normally, after a period of months. The adult may or may not do so, depending on the severity of the injury." (p. 241).
Undoubtedly Penfield's opinions have exerted great influence, particularly on the FLES movement, but it has been observed from various quarters that his arguments provide no more than indirect substantiation of the advantages of early language teaching.

Th. Andersson (1960) also found a great deal in favour of a very early start to language studies in schools, but he also observed that "Ideally the best language learning takes place out of school" (p. 306) among children who from birth are exposed to several languages.

Concerning "school learning" Andersson believed that, theoretically, the best arrangement would be a nursery school for children of three or four, with several foreign teachers each conversing with the children exclusively in his or her native language. However, there were various methods worth considering whereby this type of approach could be adapted to classes of older pupils.

In her "Rationale for FLES", Donoghue (1967) gave four groups of reasons for the teaching of foreign languages in elementary schools. These included what she termed "psychological reasons". Among other things she observed the following:

> "Children are intrigued by words. They are naturally curious about language, and make up new words and use old ones in new combinations. They are interested in the flow of language and like to experiment with new and different sounds. They are eager to learn new words and use them regardless of the language in which the words are found. In fact, they may not even know that the words mean and still enjoy saying them." (p. 164).

Donoghue also believed that children, particularly under the age of ten, "are able to retain what they have heard and repeat it without ever seeing it written or writing it down themselves" (p. 65) and that children are spontaneous and not particularly worried about making mistakes. "They have none of the self-consciousness that is such a handicap at a later age." Learning a second language is not so much "a subject of study" to children as "a way of doing things that are particularly interesting to children." (Ibid.).

The observation that younger children are relatively spontaneous and that, later, between the ages of 10 and 12, they become more self-critical and self-conscious is also referred to by Gorosch et. al. (1967, p. 26) as an argument for the earlier commencement of language studies.

B. Social and cultural reasons

A completely different type of argument was put forward by Stern (1966, 1969), who maintains that the acquisition of a foreign language must become part of "the basic literacy of the child", on a level with reading and writing. We all live in a world where many different langauges are

spoken, and it is therefore indefensible for education to create "a rigidly monolinguistic setting". Stern went on: "If education is to reflect the realities with which we have to live, other languages and other cultures should impinge on children from the earliest stage of formal education." (Stern 1969, p. 26).

Donoghue (1967) pointed out that in 1960 the U.S.A. had more than 34 million inhabitants whose first language was not English. She also observed:

> "Today in bilingual communities we can promote and maintain desirable empathy for ethnic groups through FLES, for it has been well noted that in those areas where the second language of the community has been introduced into the elementary schools, the fear and shame which young native speakers of that language formerly felt has often yielded to pride in their cultural heritage. Simultaneously, the children of English speaking background have developed both a strong motivation to learn a second language and a new kind of tolerant understanding about its native speakers." (op. cit., pp. 61-62).

Donoghue added that the teaching of foreign languages in the elementary stage could also help children in monolingual areas to develop a sympathetic attitude towards speakers of other languages.

C. Reasons of curricular theory

Another group of reasons for the earlier commencement of language studies in schools is founded on various "curricular" arguments concerning the scope which should be given to a subject at different school levels. Van Willigen (1961) maintained that "if the study of modern language is to meet present-day needs, more time must be allotted to it in school curricula, which, unfortunately, are already overloaded." If scope for the teaching of a language cannot be provided at secondary level, the answer may be to start at an earlier level. Van Willigen referred to this as a solution which was being adopted by an increasing number of countries. He also made the interesting observation that "it is always difficult to see whether a particular argument supplies the reason for a decision or provides justification after the decision has been made." (p. 7).

Grosch et.al. (1967) thought that the principle of "life-long integrated education", which had been accepted by UNESCO among others, should hold certain implications for the teaching of modern lan-

guages. They pointed out that language teaching methods must be adapted to the maturity of the students and to their mastery of other subjects, and they proposed three levels having different goals with regard to the teaching of foreign languages:

> "Basic language skills in the pre-school stage and primary school, general knowledge and skills in the secondary school (lower and upper), and the language of reasoning and of the "speciality" (the so-called "language of science and technology") at the university and in adult training." (op. cit., p. 28).

Carroll (1969) found certain practical considerations in favour of the early commencement of language studies.

> "If learning of foreign language takes time, the earlier it is started the better. Children can be given more time to practise the use of a language, and they can do it over longer periods." (p. 62).

Carroll also believed that "the amound of competence one achieves is largely a matter of the amount of time spent in learning, rather than the actual age of starting."

He added:

> "Thus the argument for early language learning depends mostly on the fact that such an early start is likely to allow more time to be spent." (op. cit., p. 63).

D. Concluding remarks

The arguments in favour of early language teaching which have been qouted here dominated the language teaching debate at the time when the EPAL project started. This is not to say that they were unopposed even then, but the objections raised to the teaching of foreign languages at elementary level did not carry much weight. Instead the main source of inspiration for the EPAL project was the widespread enthusiasm for early language teaching. As the project has continued, there has been a certain shift of opinion on this point (which will be dealt with in a future report). However, this does not detract from the arguments in favour of a closer study of the question of early language teaching. On the contrary, in view of the divided opinions existing with regard to the effects of early language learning in schools, there is all the more need for a practical study like EPAL to investigate those effects within the Swedish school system.

RESEARCH INTO THE TEACHING OF FOREIGN LANGUAGES AT THE ELEMENTARY LEVEL

The arguments in favour of early language teaching quoted above are overwhelmingly based on general observations concerning children's assimilation of language. There are only very limited findings available from systematic research in this field. Insofar as any pronounced tendency can be discerned in this research, it certainly does not provide any firm justification for the hopes of great educational gains accruing from the early study of a foreign language.

The studies conducted by Kirch (1960) and Ginsberg (1960) are two of the earlier experiments in the teaching of foreign languages which despite their limited scope have attracted a certain amount of attention. Kirch reported, on the strength of his own experience of teaching German in grades 1, 3 and 6, that the children's pronunciation ability seemed to vary inversely with their ages. Accordingly he recommended the teaching of a foreign language from the very first grade.

Ginsberg described experiments in which pre-school children in Leningrad were taught a foreign language. Above all these experiments involved the testing of different methods in the instruction of two age groups (five and six-year-olds) at three kindergartens. Each group was taught for half an hour per day three times a week. Among other things, the experiments led Ginsberg to the conclusion that "..... children of five and six can learn a foreign language, its phonetics and syntax, with remarkable ease." (op. cit., p. 20).

In order to obtain a basis of comparison, the teachers in the pre-school experiment also taught pupils in the second and fourth grades of regular school using similar methods*. Ginsberg observed: "Sounds are mastered more easily in the 2nd grade than in the 4th, but less easily than in kindergarten." He also noted that "after the summer vacation pre-school children recalled what they had been taught much more rapidly and fully than schoolchildren." (ibid., p. 24). Thus Ginsberg arrived at the preliminary conclusion that pre-school children learn a foreign language much faster, better and more permanently than children of school age.

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* Audiovisual methods were used, the aim being to develop the pupils' command of the spoken language, not to teach them to read or write the language.

In a Swedish experimental scheme of preparatory English teaching, pupils spent three fifteen-minute lessons each week listening to the language and imitating it with the aid of a tape recorder and a filmstrip (Gorosch & Axelsson, 1964). In this way the teachers running the experiment did not have to intervene in the teaching process, nor were any special language qualifications required of them. Since teaching in accordance with this model (entitled "English without a book") was conducted in various grades (1-4), the results among children of different ages could be compared. Ekstrand (1964) found that the older pupils did consistently better than the younger ones in tests of pronunciation and listening comprehension.

In a relatively comprehensive investigation by Dunkel and Pillet (1962), a study was made of the teaching of French starting in grades 3 and 4 at the University of Chicagos Elementary School. Concerning the age for beginning the learning of a second language, it was found that "when the audio-lingual skills are a major objective, students in the third and fourth grades do better than those beginning later." (op. cit., p. 141). At the same time, however, it was evident that those in the fourth grade did as well as grade three, if not better, where oral skills were concerned*.

Brega and Newell (1967) investigated the long-term effects on high school achievement of foreign language teaching at elementary level. In a similar study by Justman and Nass (1956), where high school merits were used as a criterion of comparison between matched pupils with and without previous instruction in French or Spanish, the differences in favour of the FLES students were either non-existent or negligible. Brega and Newell compared students at the end of the eleventh grade (high school) who had either studied French since the third grade (the FLES group) or since the

* Dunkel and Pillet had the following remarks to make on this point. "Since we are not speaking here of the child who acquires the foreign language by living in the milieu where it is spoken, we suspect that the better progress of the fourth grader is due to greater maturity, better adjustment to school routines, or similar characteristics which make the fourth graders somewhat better able to profit from formal classroom work." (Ibid.).

seventh grade. The criterion used here was the results of M.L.A. tests* in the four skills of listening, speaking, reading and writing. The FLES students did significantly beter in all of these tests.

In an experiment by Asher and Price (1967), a study was made of the learning by children and adults of Russian commands of varying length. In the retention tests, which required adequate behavioural responses to the Russian sentences, e.g. standing up, going to the door or picking up a pencil, the adult group was far more successful. The older groups among the children (ten and fourteen-year-olds) displayed significantly better retention than the youngest (eight-year-olds). Asher and Price inferred that, where children and adults are set to learn a foreign language on the same terms, the adults are more successful.

In a study of hte pronunciation of English sentences by Cuban immigrant children of various ages living in the U.S.A., Asher and Garcia (1969) found that the best pronunciation - "a near-native pronunciation" - was commonest among children who had come to America before the age of six. "There seemed to be an inverse relationship between age when the child entered the United States and the acquisition of a near-native pronunciation." (op. cit., p. 340).

In his surveys of research, Carroll (1960, 1963) found good reasons to believe that the earlier children were exposed to a foreign language the better their pronunciation would be. On the other hand he was unable to find evidence to show that children learned other language skills more rapidly, if allowance was made for the time needed for learning.

In a later account (1969), Carroll discussed the reason for the popularity of the supposition that small children learn foreign language faster than older children or adults. He believed this supposition to be principally derived from the observation that children acquire a better pronunciation. "After all a good accent is the most easily observable aspect of language competence." (ibid., p. 62). Carroll also pointed out that small children only became "very fluent in a second language" under certain conditions. He added, "what is often ignored

* Sub-tests in the Modern Language Association Cooperative Foreign Language Test.

is that the conditions are rather specialized and not always easily arranged or duplicated in schools, and that even under these specialized conditions not every child learns the second language as well as his mother tongue." (ibid., pp. 57-58).

In an exposé of the successes and problems of the FLES movement, Stern (1966) remarked as follows: "FLES-experience has found children particularly amenable to meaningful sound discrimination, role playing, and simple linguistic behavior in social situations. On the other hand, grammatical abstractions are of little value." (ibid., p. 266). Stern also maintained that arguments concerning an optimum age for the learning of a second language had not been an unqualified advantage to the FLES movement, because among other things they had led to exaggerated hopes and a naive faith in the linguistic ability of younger children of school age. For many reasons, the efforts made to show that small children learned foreign languages better than young persons and adults were misguided. In an article written some years later, Stern referred to the difficulty of producing any such evidence*. He also found that people had tended to overlook the fact that "..... effective teaching of languages to young children is a feasible achievement." (Stern, 1969, pp. 27-28).

Stern summarized his conclusions regarding the early teaching of foreign languages in the following words: "..... children have been proved to make an effective start in language learning under school conditions and this early start appears to lay a good foundation for continued language study throughout the period of full-time schooling." (ibid.)

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* Carroll (1969) observed the following, among other things: "There are qualitative differences in the kind of language mastery attained by children and adults." As he saw it, the differing interests of children and adults precluded a common syllabus. (p. 61).

PROBLEMS

THE EFFECTS OF THE EARLY TEACHING OF ENGLISH

As was shown in the previous chapter, there were good reasons for anticipating certain benefits from the early teaching of English, and desires to this end had been expressed in several quarters. These desires are fully in line with the development of the role and importance of foreign languages in the Swedish compulsory school during the past few decades. English has become progressively more important as the first foreign language to be studied by all pupils, and the commencement of English studies has gradually been moved downwards through the grades.

Thus the advent of the EPAL project can be seen as a natural stage in the development described above. The main topic of investigation concerned the advantages and disadvantages of English from grade 1 as against the commencement of English in grade 3 laid down by the Lgr 69 time schedules. There were above all psycholinguistic reasons for anticipating benefits in terms of the pupils' assimilation of a foreign language, at least in certain sectors, if teaching were to begin at an earlier age. But the theoretical foundations of the arguments put forward were uncertain and would therefore have to be put to a comprehensive practical test in order for reliable conclusions to be possible. As should be clear from the preceding section (pp. 28-31), the available empirical material was generally inadequate. Moreover the reference group thought that experimentation was needed in Swedish conditions, even if there were examples of successful experimentation with early language teaching to be referred to in other countries. Only after this experimentation had been conducted would it be possible to make any reliable pronouncements concerning the effects of early English teaching in Swedish comprehensive schools.

The main topic of investigation for the project is the effects of early English teaching on the pupils' knowledge and skills in English. Both immediate and more long-term effects have to be taken into account.

Another prime issues concerns the potential effects of English teaching from grade 1 upon other aspects of school work. The occurrence of an additional subject in grade 1 could have a disruptive effect on other teaching, for instance if it were to occupy the attention, energy, interest etc. of both teacher and pupils to such an extent as to take

some of the zest out of other activities. On the other hand English lessons could have a stimulating effect, for instance by adding to the variety of school work.

The question of the effect of the early introduction of a foreign language on the practice of the pupils' language skills in Swedish is of course a very important problem which urgently requires investigation. Apprehensions have been expressed of the practice of basic skills in the native language being disrupted by the early study of a foreign language, but several American studies have failed to establish any such negative consequences (Geigle, 1957, Johnson et. al., 1961, Lopato 1963, Potts 1967)*.

To provide scope for the teaching of English in grades 1 and 2, some changes will have to made to the time schedule allocations of one or more other subjects, unless the children's school hours are to be increased. The question therefore arises of the effects of such a reallocation.

Before venturing onto a more exact definition of the aims of the EPAL project, an account will be given of the teaching time allocation for English which came to be applied to the various grades and classes taking part in the experiment.

TIME APPORTIONMENT

The problem of time apportionment is best divided into two subsidiary problems, namely the age at which English studies are to begin and the apportionment between the grades of the time available for English lessons.

A. Timing of the first instruction in English

The main topic of investigation for the EPAL project concerned the effects of ealry English teaching. The term "early",of course, denotes a commencement prior to the autumn term of grade 3 (according to the Lgr 69 time schedules) comprehensive school framework. Thus various junctures for the commencement of English studies in grades 1 and 2 could come into question.

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* In an article written in 1960, Carroll made the following pronouncement: "The concerns of those who fear that FL study will cause psychological interference with study of the native language are probably completely unfounded. Even in psychological research on learning it is hard to produce interference effects except under special experimental conditions unlikely to occur in actual school situations." (Carroll, 1960, p. 14).

However, the arguments in favour of early foreign language study quoted above appeared to speak in favour of as early an introduction as possible. Moreover it seemed justifiable to investigate a starting point as far removed as possible from the usual one (grad 3), so as to make any differences all the more apparent. Consequently discussions within the reference group for the project centred mainly round the grade 1 alternative, even though the commencement of English studies in grade 2 was still considered an interesting possibility.

The reference group decided in favour of an investigation of the effects of English teaching commencing in the spring term of grade 1. The autumn term of grade 1 was judged less appropriate, on the grounds that the children needed the initial period of schooling to grow accustomed to their new surroundings and acquire certain basic school habits, apart from which it was arguable that the practice of basic language skills in Swedish should be given a head start on the second language.

B. The allocation of English study time between grades

Theoretical viewpoints concerning different allocations of time

If we disregard various practical restrictions and imagine that the total number of teaching periods allotted for a subject can be freely divided between the grades of comprehensive school, the question arises as to the optimum apportionment of those periods. In other words, what allocation of teaching time between grades will have the best teaching results? There are of course a variety of principles which can be applied to the apportionment of a fixed number of teaching periods. For instance, the periods can be equally divided between the grades, or else resources can be concentrated on an number of grades, other grades being given no instruction at all.

A number of different time allocations from those currently in force could be considered worth trying, for instance, in the light of theories of development psychology, the order in which the various sub-goals occur in the subject in question, the motivation and interests of the pupils and so on.

However, our ability to compare the effects of such alternative time allocations is among other things conditional on the existence of certain teaching goals for the subject in question, which are to be achieved during the comprehensive school period, and on the possibility of defin-

ing those goals sufficiently to be able to establish the extent to which the pupils achieve them.

The above argument concerns the use of a pre-determined resource - the total number of comprehensive school periods for a subject. Of course, one can also inquire after the optimum apportionment of the total number of comprehensive school periods for all subjects between the various subjects on the timetable.

If the effects on one subject of a slight alteration of the total number of periods were to prove relatively limited, while another subject was more profoundly affected, this could possibly require action to be taken. Assuming among other things that equal importance is attached to both subjects and that the inculcation of certain basic knowledge and skills is not prejudiced, teaching periods can well be taken from the first subject and transferred to the second.

The adoption of time schedules is in the ultimate analysis a matter for the Riksdag, while the allocation of periods for the various subject is a matter of goals and resources involving many different interests, not least the organized interests of teachers themselves. Moreover the opportunities of, say, carrying out controlled comparisons of different time allocation variants, especially variants involving several subjects simultaneously, are extremely limited, for practical or economic reasons. Nonetheless, there is probably a great need for curriculum research of this kind, in various forms, as a means of providing policy makers with more abundant and more balanced working material.

Theoretically interesting time allocations for the teaching of English

To begin with, the question of the time allocation for English lessons to be used in the experiment was discussed purely theoretically, without regard to practical and economic problems were disregarded for the moment. Gradually, however, increasing attention came to focus on the importance of various limiting factors, and a search began for practicable solutions to the problem of a reapportionment of the periods available for English studies.

Three of the theoretically most interesting time allocation variants will be considered here.

I. Allocations with an increased number of periods

There are many examples showing that periods of intensive learning can be highly effective where the assimilation of a foreign language is concerned*.

The frequently made observation that small children sometimes, for instance during a prolonged stay abroad, pick up a foreign language with the greatest of ease also corroborates the assumption that a concentrated period of learning can be an advantage.

A heavy teaching period increment was considered necessary in order to achieve more intensive periods of English instruction. This additional resource was primarily to be utilized in the first grades. Thus the reference group discussed time allocations of up to 30 periods per week for the whole of comprehensive school. Consideration was also given to smaller increments divided between the introductory grades**.

II. Allocations with a more concentrated introductory phase

One important issue of principle considered by the reference group concerned the amount of teaching time to be allocated during the introductory phase. Fears were expressed that an unduly small number of periods during the first grades could have certain disadvantages. Only when the pupils get enough practice in the language to be able to start using it fairly rapidly can they be presumed to be motivated for continued language learning. A sufficient measure of teaching support must therefore be provided during the introductory phase.

The leaders of the project also judged it advisable in terms of the psychology of learning for lessons to be given at relatively

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* Cf Carroll (1962), The Prediction of Success in Intensive Foreign Language Training, in Glaser (ed.), Training Research and Education.

** At an early stage in the work of the project, the aim was said to be to study the effects of
a) a reapportionment of the total of 21 English periods per week throughout the whole of comprehensive school in accordance with the variant (subsequently investigated) involving the commencement of English studies in grade 1,
b) a total allocation of up to 30 periods, with a heavy increment during the first grades. (Skolöverstyrelsen: School Research Newsletter 1970:11).

frequent intervals*. This is probably a particularly important consideration during the initial stages of learning a foreign language.

A time allocation between the grades providing a relatively intensive phase of English teaching does not necessarily demand a large number of teaching periods, because a single period (40 minutes) can perfectly well be divided into two 20-minute lessons. However, if the total number of English periods is not increased, a fairly drastic reapportionment of the number of periods available (as per Lgr 69) will have to be effected.

III. Allocations of the same kind as in Lgr 69

Lgr 69 divides a total of 21 English periods per week between the grades as follows: grades 3 and 4, two periods per week, grades 5 and 6, four periods per week and grades 7-9, three periods per week; se Figure 1.

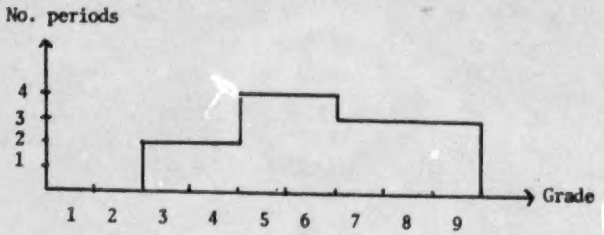

Figure 1. Allocation of English periods between grades of comprehensive school as per Lgr 69.

It could be of interest to make comparisons with a corresponding time allocation, but starting from the spring term of grade 4 instead of the autumn term of grade 3. However, a time allocation wholly congruent with that of the Lgr 69 time schedule would imply the conclusion of English instruction at the end of the autumn term of grade 8, which perhaps would be an undesirable arrangement from many points of view. Another possibility would be to make the allocations only partially congruent, for instance with four 20-minute lessons (= 2 periods per week) being allotted for English teaching during the first four terms of both alternatives. An arrangement of

* For instance, four lessons per week (on different days) throughout a school year are probably more effective than two lessons per week for two school years.

this kind would make it possible to investigate the specific importance of the juncture at which English studies are begun.

Limiting factors

A number of general viewpoints have now been presented concerning different time allocations, and mention has been made of some theoretically interesting time allocations for the teaching of English. However, when the EPAL reference group came to choose the time allocation variant to be investigated, a number of limiting factors had to be taken into consideration which greatly restricted the choices open to them.

Firstly the total number of periods for comprehensive school English according to Lgr 69 (21 periods per week) represents a frame which cannot be exceeded without great difficulty. An increase in this number of periods either demands new resources (including more teacher periods) or else a reapportionment of the resources already available, i.e. the subtraction of periods from some other subject. Neither of these alternatives is very appealing. An experimental scheme based on the first mentioned alternative would be relatively costly, and even very good results would be unlikely to make up for the financial drawbacks involved. Nor can the transfer of periods to English from another subject be arranged without any complications. It would probably be hard to obtain permission from local education authorities and teachers' associations, even in the context of an experimental scheme, for an alteration of this kind, which in the ultimate analysis represents a revision of priorities relative to the goals of the school system.

Secondly, the allocation of teaching time between the grades cannot be excessively tampered with. For instance, efforts to redeploy the available of periods from the senior level of comprehensive school to earlier grades run into very great difficulties due to differences in the structures of teaching appointments (with subject teachers at senior level and class teachers at middle and junior levels). Then again, one has to bear in mind that experimental activities involving a revised allocation of teaching time cannot be organized in a vacuum.

Since the experiment is expected to continue for several years, consideration also has to be given to pupils moving into or away from the experimental classes. It is very important to ensure that the transition from one type of English teaching to another is not made unnecessarily troublesome for these pupils by the experimental activities being conducted under radically different conditions.

Time allocation in EPAL

Bearing in mind the juncture chosen for the commencement of English studies and the above mentioned restrictions applying to the disposition of the available teaching periods, the reference group decided that a time allocation involving a minimum of departure from the Lgr 69 time schedules was to be used in the experiment.

As mentioned above, Lgr 69 divides a total of 21 "periods per week per grade" between grades 3-9 as follows: grades 3 and 4, two periods per week, grades 5 and 6, four periods per week, grades 7-9 three periods per week; see Figure 1, p. 37).

By reducing the number of periods where it is greatest, i.e. in grades 5 and 6, and using the surplus periods in grades 1 and 2 instead, we obtain a fairly even allocation of teaching time; see Figure 2.

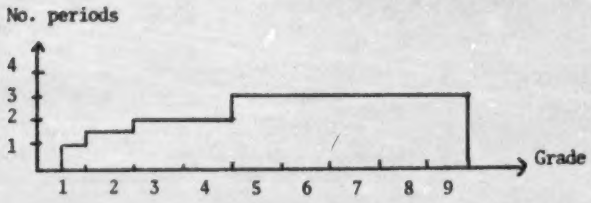

Figure 2. Allocation of English teaching time between comprehensive school grades as per EPAL.

To avoid altering the total number of periods per week in the grades affected by this reapportionment, it was decided to take the English periods for grades 1 and 2 from the periods allotted for Swedish. Swedish would then recover these "borrowed" periods in grades 5 and 6. The exchange with Swedish was judged desirable because Swedish has a fairly large number of periods per week in grades 1 and 2 (9 and 11 respectively).

This exchange ought to imply a less drastic alteration than an exchange with some other subject with fewer periods per week.

PURPOSE

In accordance with the above arrangements, the main purpose of the EPAL project can be defined as follows. The purpose of the EPAL project is to cafry out a comprehensive examination of the effects of time schedules for English whereby instruction begins during the spring term of grade 1. Total teaching time for English during junior and middle levels will be the same as the Lgr 69 time schedules allocate for grades 3-6.

The main purpose will be achieved by means of comparisons with, in the first instance, the Lgr 69 time schedules and, to some extent, with somewhat modified time schedules from Lgr 62*; see Table 2.

Table 2. English time schedules compared in the EPAL project

	Junior and middle levels						Total	Senior level			Grand total
	grade 1	grade 2	grade 3	grade 4	grade 5	grade 6		grade 7	grade 8	grade 9	
"Lgr 62"	-	-	-	3	4[a]	4[a]	11	3	3	3	20
Lgr 69	-	-	2	2	4[a]	4[a]	12	3	3	3	21
EPAL	0.5	1.5	2	2	3[a]	3[a]	12	3	3	3	21

[a] 1 period per week is devoted to divided class teaching, giving teacher period requirements of 5 and 4 periods per week respectively.

Primarily the comprehensive examination will entail the evaluation of long-term and short-term effects on the pupils' knowledge and skills in English and of their attitudes to the teaching of English. A study will also be made of any effects on the pupils' knowledge and skills in a) Swedish and b) mathematics, and c) on their attitudes to the various subjects and to school in general. Some observation will also be maintained of the character of the English teaching process in the various time schedule conditions.

The project will also involve an analysis of the effects of the various English time schedules on different pupil groupings. In this connection it will be possible for special attention to be given to the conditions of low performers and immigrant children.

* According to Lgr 62, English starts in grade 4 with 2 periods per week, followed by 5 periods per week in grade 5 and 4 in grade 6. Interim regulations allow an extra English period per week in grade 4 and 4 periods per week instead of 5 in grade 5 (in accordance with the Lgr 69 time schedules).

DESIGN

CHOICE OF EXPERIMENTAL AREA

Thus the first issue which had to be decided in the EPAL project concerned the relative advantages and disadvantages of a certain time schedule for English in the junior and middle level grades of the Swedish comprehensive school (vid. supra). For purposes of generalization, therefore, it would have been ideal if some form of national sample of pupils or classes had been feasible. For practical and financial reasons, however, a procedure of this kind is rarely possible and could not be considered on the present occasion. The only realistic alternative in view of the resources available for the project was to find a suitable school district and select a number of classes within the district to form an experimental group, taking others as a control group.

A. Requirements

There were certain basic requirements which had to be satisfied in order for a school district or suchlike to be eligible as an experimental area. Firstly, the district had to be close to Uppsala, otherwise fares and other expenses would become prohibitive. Secondly, allowance had to be made for the fact that the pupils involved by this study would be followed for several years, at least up to the end of middle level. Bearing in mind the appreciable changes that were bound to be undergone by the pupil population during such a protracted period, the groups must from the very outset be dimensioned in such a way that they would still include a sufficient number of pupils after grade 6 (an important vantage point for evaluation purposes). Thus the school district would have to comprise a relatively large number of classes. Needless to say, the experimental area would also require junior level teachers qualified to teach English. It was also extremely desirable for the school district to use the acclimatization procedure incorporating Ljungblad's autumn test during the initial stages of grade 1, the reason being that this test is an ability test comprising several sub-tests measuring different aspects of ability or school readiness. The availability of this type of determination of the pupils' initial status was regarded as an essential means of enhancing the accuracy of subsequent comparisons between groups of pupils.

Finally, the experimental area had to be well equipped with such teaching aids as tape recorders, flanellographs, overhead projectors etc., since a junior level English textbook (at least, with the methods currently practised) requires an abundance of recorded and pictorial material of various kind.

B. The Västerås School District

An inventory of conditions in a number of eligible school districts revealed that the Västerås School District was best suited to the requirements and desiderata enumerated above. Since the Västerås education authorities were also very favourably disposed towards participating in an experimental scheme of English teaching starting in grade 1, it was decided to conduct the EPAL experiment in Västerås.

The Västerås School District was well suited in the respects previously referred to to serve as an experimental area. It was close to Uppsala and had a relatively large number of classes in each grade. The district also had junior level teachers qualified to teach English, the schools were well equipped with AV aids, and the beginning of the autumn term in grade 1 was an acclimatization period including the above mentioned school readiness tests.

Another factor meriting attention was the fairly large proportion of immigrant children in Västerås. This was an advantage in some ways. Among other things it would facilitate an immediate study of the implications for immigrant children of the early commencement of foreign language studies.

EXPERIMENTAL GROUPS

Altogether four different groups of pupils in Västerås are taking part in surveys under the EPAL project. This groups have been dubbed E1, K1, K2 and K3. E1, the experimental group, comprises a number of classes taking English in accordance with the EPAL time schedules, while the other groups are "control groups" of different kinds.

A. Experimental groups E1 and K3

The two most important experimental groups for the purposes of the project are E1 and K3, which are studying English according to the EPAL and Lgr 69 time schedules respectively. Apart from the difference in time schedules, these two groups are being treated identically. Thus great efforts have been devoted to making the conditions of E1 and K3 as equivalent as possible. For instance, during the introductory terms of English, both groups used teaching materials compiled as part of the project and accompanied by an exhaustive teacher's guide which steers the instruction very closely, thereby assuring uniformity of instruction. As will be appreciated, this is one of the preconditions of comparisons between the various classes.

After using EPAL's teaching materials for a total of 3 of the 12 grade-week periods (at junior and middle levels), the E1 and K3 classes changed to a commercially available teaching material* which was also accompanied by an exhaustive teacher's guide; see the figure below.

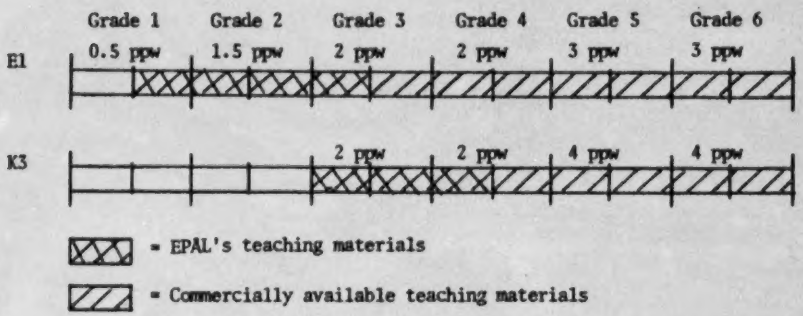

Figure 3. English teaching in groups E1 and K3: periods per week (ppw) for each grade and teaching materials used.

The reason for the change to another teaching material was that, as time went on, it was found that the production of a special teaching material as part of the project would be too costly. There were certain plans for the construction of a series of teaching materials to be used from grade 1 up to and including grade 6, but a transition at some suitable juncture to existing teaching materials had also been discussed; see also page , infra, concerning the change to commercially available teaching materials.

The teachers taking groups E1 and K3 have frequently been called to meetings at which they have been given general information on the EPAL experiment, an introduction to the EPAL material, demonstration lessons etc. The classes forming the E1 and K3 groups have also been visited by the project members for purposes of classroom observation. Groups E1 and K3 have also been treated on equal terms as regards measurements in English. The tests of various kinds taken by the E1 group have also been administered, after a corresponding amount of instruction, to the K3 group.

* New Hallo Everybody, by Axelsson-Knight-Sundin.

Group E1

Group E1 comprised 24 classes when its members first entered grade 1. As mentioned earlier, this group started English in the spring term of grade 1. To begin with the instruction took the form of short lessons lasting 20 minutes, with two such lessons per week during the spring term of grade 1, three per week in grade 2 and so forth; see Table 3. The teaching material compiled as part of the EPAL project was used from grade 1 to the autumn term of grade 3 inclusive. A short description of this teaching material will be found on page

Table 3. English lessons per week in groups E1 and K3, grades 1-6

	grade 1, spr. term	grade 2	grade 3	grade 4	grade 5	grade 6
E1	2x20 min	3x20 min	4x20 min	4x20 min	3x40 min	3x40 min
K3	-	-	4x20 min	4x20 min	4x40 min	4x40 min

Classes for group E1 were automatically selected following an agreement as to which teachers were to take English from grade 1. All of these teachers were qualified by the beginning of the autumn term 1970 to teach English.

Group K3

Group K3 started English in the normal manner, i.e. in the autumn term of grade 3, as per Lgr 69, and here to the EPAL textbook was used to begin with. As with group E1, instruction for the first terms took the form of 20-minute lessons; see Table 3. The classes in K3 have been selected to give a pupil composition bearing the closest possible resemblance to that of group E1. This has been arranged by selecting parallel classes from the same schools or school management areas as the E1 classes, wherever possible. Failing parallel classes, classes have been selected from other schools with similar recruitment conditions. Group K3, like group E1, initially comprised 24 classes.

B. Group K2

Group K2 comprises the remaining Västerås classes of pupils who started school in the autumn term of 1970, i.e. the thirty-seven grade 1 classes remaining after the deduction of the E1 and K3 classes.

Like group K3, group K2 started English in grade 3, following the Lgr 69 time schedules, but unlike groups E1 and K3 this group is using a commercially available teaching material, New Hallo Every-

body*, for the whole of the experimental period. Measurements in English are being kept to a minimum in group K2. Thus no English tests are included in grades 3 and 4. The first tests to be administered are a number of group tests in grade 5.

Group K2 plays an important part as a control group for E1 and K3. These two groups can be regarded as experimental groups in the sense that English is taught there in special conditions and the groups are subjected to close attention from the project in the form of frequent measurements in English, observations and visits, information meetings and so on. In other words, E1 and K3 are not being taught English in perfectly normal circumstances. On the other hand the English teaching conducted in group K2 should qualify as fairly representative of "the teaching of English under normal conditions".

The K2 classes also serve the very important purpose of acting as reception classes for pupils moving into Västerås. One very difficult problem in a protracted study of this kind is that of keeping the experimental classes intact. The admission of new pupils into these classes naturally tends to disrupt the design of the experiment, especially if the proportion of new pupils in the classes grows large. Under an agreement with the Västerås education authorities, however, new arrivals have to the greatest possible extent been placed in K2 classes and it has been possible to limit the numbers of new pupils in groups E1 and K3.

C. Group K1

Group K1's English studies are based on a combination of the Lgr 62 and Lgr 69 time schedules sanctioned by special interim regulations issued by the National Board of Education **; cf. Table 2. Thus English studies begin in grade 4 with 2+1 periods per week, continuing in grades 5 and 6 with 4 periods per week. Thus group K1 studies English for a total of 11 periods per week in grades 4-6, which is one period per week less than the other groups in the EPAL investigation. For this reason, and also because

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* Cf. page 43. This is the same teaching material to which groups E1 and K3 change after their introductory period using the EPAL teaching material.

** Current News from the National Board of Education, 1969/70:7, p. 7.

it starts English later than the other groups, group K1 is particularly interesting with reference to EPAL's main topic of inquiry concerning the effects of different time schedules for the teaching of English.

Group K1 comprises pupils from the generation which started in grade 1 in the autumn of 1969. To avoid the collection of unnecessarily large quantities of data, a selection was made of about half the total number of classes in the urban area of Västerås School District. This selection was made on a random basis in each school management area and the resultant sample comprised 29 classes.

Table 4. Experimental groups for the EPAL project in Västerås

started school	designation	no.classes starting school	English lesson	English teaching materials to begin with
aut.'69	K1	29	gr 4-6:11 ppw	no
aut.'70	K2	37	gr 3-6:12 ppw	no
aut.'70	K3	24	gr 3-6:12 ppw	yes
aut.'70	E1	24	gr 1-6:12 ppw	yes

Summary

The above table provides a survey of the experimental groups taking part in the project in Västerås. Four different groups of pupils are being studied. Together groups K2, K3 and E1 comprise all the pupils who started school in the autumn term of 1970, except for special classes. The total number of pupils in these groups in the school year 1970/71 was roughly 1.800. The number of pupils in K1 in 1969/70 was upwards of 500.

PLAN OF COMPARISON

A. English

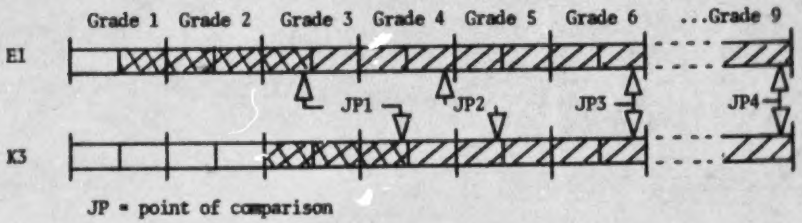
E1 & K3

The effects of the English time schedules used in the EPAL experiment on the pupils' knowledge and skills in the subject will be studied primarily by comparing groups E1 and K3. Relatively comprehensive measurements are being undertaken on a number of occasions or points of comparison (Sw. abbreviation, JP), and a number of less comprehensive tests have been given to the experimental classes in group E1 and K3 on several occasions during the introductory terms of English.

I. Points of comparison

The first point of comparison - JP1 - comes at the transition from the EPAL teaching material to a commercial one, which in both groups occurs after 3 of the total av 12 English periods per week at junior and middle levels; see Figure 4. In group E1, JP1 comes at the end of the autumn term in grade 3 after four terms of English.

Halfway through the English instruction for the junior and middle levels of comprehensive school (i.e. after 6 grade-week periods), JP2 comes at the end of the autumn term of grade 5 in group K3.



Figur 4. Points of comparison for English in experimental groups E1 and K3.

JP3 at the end of grade 6 is a very important summing up point for evaluation purposes, because by this time the pupils in the two groups have had the same number of English periods, added to which they are the same age. At the previous points of comparison, the group K3 pupils are always somewhat older when tested than the group E1 pupils, which complicates and detracts from the interpretation of the results.

A further point of comparison is planned for the end of grade 9. If the results of the measurements in junior and middle levels indicate that a comparison in grade 9 would be useful, and if the project has the resources for this purpose, a further measurement of this kind may also be undertaken.

II. Measurements during the introductory phase

During the first terms of English, while the EPAL teaching material was being used in groups E1 and K3, teacher-directed listening comprehension tests were conducted in the various classes of each group on four occasions. Two individual tests were also carried out, involving a random sample of about 40 per cent of the pupils in each group. These tests, conducted by special examiners, were principally aimed at charting the pupils' speech production and general pronounciation skill. All tests have as far as possible been given to the various experimental groups after the same amount of English instruction; see Figure 5, infra.

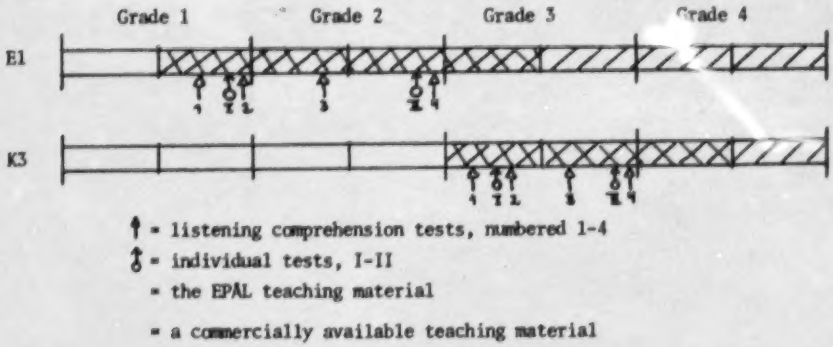


Figure 5. Measurements during the introductory phase of English in groups E1 and K3.

III. Classroom observations

Classroom observations of English lessons in groups E1 and K3 were a very important means of studying the various effects of different time schedules. Since the E1 pupils started English three terms earlier than the K3 pupils and were thus about 1.5 years younger on average, there is reason to anticipate somewhat different teaching processes. The purpose of the classroom observations is to chart any differences occurring in the teaching process between groups E1 and K3 when they are studying the same part of the course and using exactly the same materials, but when the K3 pupils are about a year

older than the E1 pupils; see Figure 6.

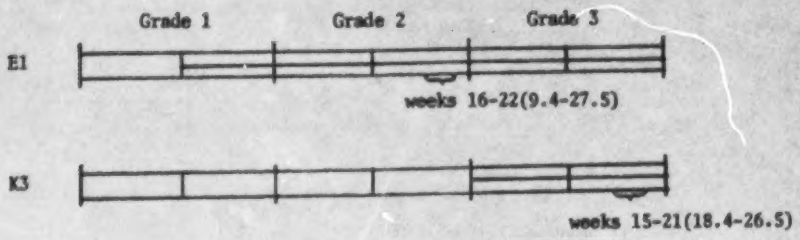


Figure 6. Systematic classroom observations of the English teaching process in experimental groups E1 and K3.

The observation period for all classes in the two groups comprises seven 20-minute lessons starting with lesson iii in the EPAL teaching material. In group E1 this period came during the spring term of grade 2, while in group K3 it came during the spring term of grade 3. The observations were made by trained observers using an observation schedule drawn up in accordance with a previously tested procedure[*].

K1 and K2

As previously intimated, K1 and K2 are also included to some extent in the evaluation of the English teaching results. The results of all groups (E1, K1, K2 and K3) in the grade 6 standardized achievement tests in English will be utilized. It should also be possible for K1 and K2 to given those parts of the test battery for K3 and E1 at JPU which are sufficiently general to the language content of the teaching materials used in these two groups. A number of tests directly designed for the measurement of the pupils' command of the language material occurring in the K2 and K1 classes may also be considered; see Figure 7.

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[*] Lena Rehnström, B.A., will be in charge of that part of the EPAL project concerning studies of English teaching processes in different conditions through the medium of classroom observations, Cf. page 61

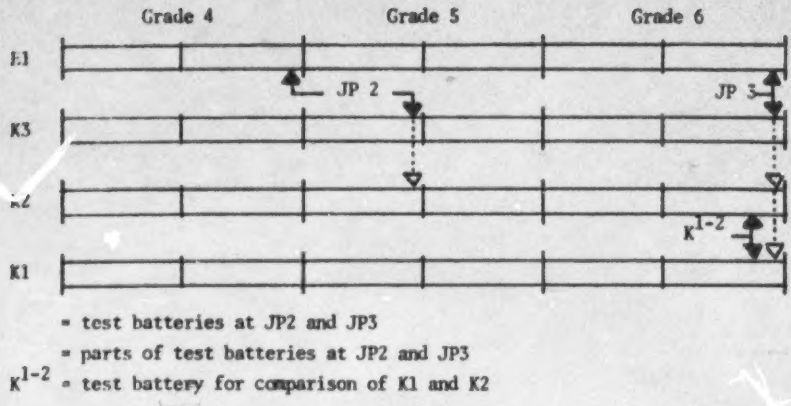
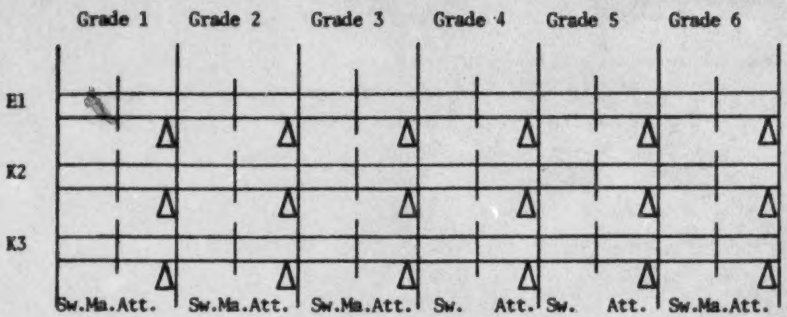


Figure 7. Comparative measurements in English involving groups K1 and K2.

Apart from these measurements, measurements have also been conducted in group K2 at JP2, where certain parts of the test battery for E1 and K3 have been used. The purpose of this measurement has been to arrive at a comparison - admittedly a rough one - of K3 and K2 in order to capture any effects due to group K3 having been subjected to relatively close attention and to certain experimental arrangements (such as that of a special teaching material followed by the adoption of another teaching material).

B. Swedish, mathematics and attitudes

Measurements of knowledge and skill in Swedish and mathematics and of attitudes to these subjects and schooling generally are being carried out on the whole of the generation of Västerås pupils that started school in the autumn of 1970 (i.e. experimental groups E1, K2 and K3), as per the following timetable.



Sw. = Swedish test

Ma. = Mathematics test

Att.= Attitude test

Figure 8. Measurements concerning Swedish, mathematics and attitudes in experimental groups E1, K2 and K3.

All of these various tests are taken at the end of the spring term of each grade and are administered by the teachers taking the various classes*. On most of these occasions it has been possible to use existing tests. For instance, all that is done in grades 3 and 6 is to collect the results of standardized achievement tests in Swedish and mathematics. Any effects deriving from different English time schedules should of course be manifested above all by results in Swedish tests.

To some extent, group K1 has also be subjected to measurements resembling those undertaken in groups E1, K2 and K3. The Swedish tests and attitude tests were administered at junior level. Swedish standardized achievement test results and pupil attitudes are due to be collected in grade 6.

CONTROL VARIABLES

A. Type of design

The type of design employed for the EPAL survey can be described as a quasi-experimental design, using the terminology of Campbell and Stanley (Campbell & Stanley in Gage,1962). It differs from a purely experimental design

* The sole exception is provided by the individual reading tests in DLS (diagnostic resing and writing tests in Swedish) in grade 1, which have been attended by clinic teachers.

in that the individuals in the experimental groups have not been divided between the various experimental conditions through randomization. Thus the comparability of the experimental groups is a major problem of quasi-experimental studies. In the present case, for instance, it is questionable whether the pupils have been evenly distributed between the various experimental groups in terms of ability and social background. One of the drawbacks to a quasi-experimental design is that one has to take into account the possibility of differences in the above respects and others besides. This means that the equivalence of the groups has to be checked on points which may conceivably be of critical importance in the contect. The amount of data to be collected increases accordingly, and statistical processing too becomes more extensive and complex. However, there are statistical methods which can be resorted to in order to cope with the problems of lack of comparability between experimental groups.

Quasi-experimental designs do not exclusively entail disadvantages compared with true experimental designs. One advantage is that the situation investigated is often far more realistic than in the case of more artificial experiments in a laboratory situation. This makes it easier to generalize one's findings with reference to the reality one is ultimately concerned with. Moreover it is often necessary in educational research - more particularly in school research - to let experiments take places in natural surroundings, which in the present case means in school; and it is hardly feasible then to go to such lengths as to distribute pupils at random between different experimental groups.

B. Choice of control variables*

The need for an assurance of the comparability of the EPAL experimental groups is not confined to the initial phase. Since the EPAL study will take at least six school years, the groups will have to be continuously monitored for changes in a number of respects, because as time goes on their composition is bound to

* Only a general and somewhat preliminary description will be attempted here. A more detailed account will be given in subsequent reports.

change. Due among other things to the mobility of the pupil cadre and to class regroupings between junior and middle level and, to some extent, between grades, the experimental groups will comprise a variable number of classes of variable size and composition from one year to another. Considerable changes are also to be expected with regard to the teachers' service, due among other things to sickness, sabbatical leave, transfers, immigration and emigration and so on.

The above considerations refer to variable external conditions affecting the experimental groups. Another possible difference here of fundamental importance naturally concerns the teaching ability of teachers and the learning ability of their pupils where foreign languages are concerned. Thus it is a very important point of principle for the English teaching proficiency of the teachers to be charted in some way*. Where the pupils are concerned, an investigation will have to be made of any differences between groups with regard to general ability and linguistic ability and also, to some extent, with regard to various factors in the home environment which can influence the disposition of the individual to learn a foreign language, though home factors are probably a great deal less important here than in cases where homework is involved.

With a view to exploring the pupils' linguistic ability, consideration was given within the project to the possibility of using a special linguistic ability test. For various reasons, however - above all for lack of suitable tests** - these plans were abandoned. Instead the results of school readiness tests from the first period of schooling were taken as a general measure of ability. A new ability measurement was undertaken in the spring term of grade 4 to obtain a more up to date measurement of pupil ability at middle level. The teachers in the various classes comprising groups E1, K2 and K3 administered six sub-tests from DBA (a differential ability test) to all the pupils in their classes; see Table 5.

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* Unfortunately, no direct measurement of English teaching proficiency is possible in the present case. An assessment of teachers in the teaching situation by several independent and qualified observers had been planned as part of the project but had to be shelved, mainly for financial reasons. The close steering effected by the textbooks will probably reduce the significance of the teacher factor here, while on the other hand certain data, such as teaching proficiency ratings years of service, type of English qualifications etc. can be utilized to form an indirect assessment of English teaching proficiency.

** EMLAT (Elementary Form of Modern Language Aptitude Test) by Carroll and Sapon might have been suitable, but it would have had to be translated and adapted to Swedish conditions first.

Table 5. Ability tests taken by the EPAL experimental groups in Västerås.

	grade 1, beginning of aut.term	grade 4, mid-autumn
E1	School readiness test	DBA
K3	School readiness test	DBA
K2	School readiness test	DBA
K1	School readiness test	-

A questionnaire was constructed and distributed to parents in order to chart factors in the pupils' home environments having a bearing on their acquisition of skill in a foreign language. However, adverse circumstances led to a very high drop-out rate, and it is extremely doubtful whether the results from the remaining questionnaires can be used*. Social class identity does at least provide a very rough summarization of factors in the home environment which may be of relevance here, and some form of social class determination may therefore be used within the project for lack of a better and more refined measuring instrument.

The following table summarizes the fields in which one or more control variables are being used or may be used under the EPAL project.

Table 6. Summary of fields in which control variables are being used or may come to be used under the EPAL project.

	Teachers	Pupils
"External conditions"	Teacher absenteeism, staff chages	Class composition and transfers within the pupil cadre
"Internal conditions"	English teaching proficiency	Linguistic ability, factors in the home conducive to the acquisition of a second language

* Only about 40 per cent replied to the questionnaire. A negative reaction to certain questions, which were perhaps considered intrusive, led a number of parents to protest to the Västerås headmasters and education authorities against the questinnaire. The negative attitude towards the questionnaire probably gained wider currency as a result of a number of articles on the subject in the press.

TEACHING MATERIAL DESIGN

A. Teaching material requirements

In planning the EPAL project, it was assumed that a certain amount of English teaching material would have to be constructed. There are many reasons for special teaching material being required with the design adopted for the project. Firstly, if teaching starts in grade 1 it is bound to be very different from the English teaching which starts in grade 4 or grade 3. One very great difference is that in the latter case the pupils' reading and writing abilities in their own language have already reached a level making it possible for reading and writing to be introduced fairly soon in the second language as well. This is not so with the grade 1 pupils, who are in the process of acquiring their basic reading and writing skills. The general maturity and interests of the younger pupils are a further reason why beginners' material in English should be designed somewhat differently from the corresponding material for pupils who are two or three years older*.

Secondly, it was thought that the teaching material produced as part of the project could help to reinforce control of the teaching process. A detailed and quite closely steered teacher's guide should help to limit variations in the influence exerted on the instruction by individual teachers. In other words, English teaching would presumably be made relatively uniform as between the different classes and groups.

Another reason for designing special teaching material under the project concerned the group of teachers who were to teach English from grade 1. Since for obvious reasons (English had not previously been taught at junior level) this group of junior level teachers could only have had very limited experience of teaching English, beginners' material was needed which would give these teachers a maximum of support. This support could be given via the exhaustive teacher's guide, an abundance of tape recordings of authentic English voices and so on.

B. Premises of teaching material design

Lgr 69 was one of the obvious starting points for planning purposes, incorporating as it did the general goals of the teaching of English and the

* When the teaching materials for the project were being planned, the only commercially available beginners' material was for grade 4, but some of this material was in the process of being adapted for use in grade 3.

main items of English studies at junior level (for grade 3). Lgr 69 also contains methodological instructions and comments, and it is accompanied by a supplement containing further instructions regarding teaching methods for English. In designing teaching material for the project, consideration also had to be given to what are termed the overriding goals.

The observations already made concerning the characteristics of pupils and teachers were another of the premises applying to work on English teaching material for the project. Thus for the sake of the pupils it was judged appropriate to include a great deal of illustrated material as well as songs, games and other activating exercises. The pupils' pronunciation had to be modelled primarily on tape recordings of English voices.

The planning of the teaching material was also based on a detailed review of existing English teaching materials for beginners, with particular reference to disposition and principles of design. The advantages and disadvantages of the various teaching materials were then discussed at length by the reference group.

Another very important foundation of the continuing work on the construction of teaching materials was provided by the surveys of literature on the teaching of foreign languages compiled as part of the project*.

C. Material components and the main principles of the teaching material

A very brief description will here be given of the teaching material. A more exhaustive presentation is to be found in Janson & Sundin (1973), "The introduction of reading in English at the junior level. A study within the EPAL project" and in Janson (1975), "Learning to read English" (preliminary title - report in preparation).

The EPAL material is divided into four parts - one for each of the first four terms of English in group E1. The first three parts include the following componenets: a) an exhaustive teacher's guide, b) overhead transparencies, c) tapes, d) A4 format flanellograph pictures, e) flash cards, f) work book. Part 4, which entails the introduction of

* Per Malmberg was the author of several memoranda based on reviews of literature, including "Memorandum concerning the choice of language situations" and "Memorandum for the construction of teaching materials."

reading, also includes text overlays for the overhead transparencies.

One of the main principles of the teaching material is the functionality of the language material, which among other things implies that teaching is based on the language used in natural everyday situations. One important consequence of this principle is that activities are easily created; quiz games, songs and simple dramatizations are frequent elements in the highly systematic and exhaustive method instructions accompanying the material. Because the language material is functional and conducive to activity, and because it has also been chosen with an eye to the pupils' interests, it should have a highly positive effect on their motivation.

It is also worth mentioning that the teaching material is characterized by a careful phonetic introduction and a relatively moderate vocabulary during the introductory stage.

D. Transition to commercially available teaching materials

It has already been explained why the production of teaching materials under the project did not continue beyond the fourth term material for group E1. When the EPAL project started, the intention was for teaching material production to continue at least some little way further, but the cost of this aspect of project activities had been underestimated. Although the EPAL teaching materials were produced by relatively simple, "pre-industrial" methods, the various components were relatively expensive owing to the limited edition.

Thus the economic frames of the project made it necessary for another, pre-existing body of material to be adopted after the EPAL material had been used for the first three grade-week periods of English. A review was therefore made of commercially available materials for grades 3-6. Great importance was attached to the choice of material whose methods and main principles of design resembled those of the EPAL material as closely as possible. It was particularly important to make sure that structures and vocabulary in the material to be adopted were more or less in harmony with the content of the EPAL material. Otherwise there was a danger of much of the basic progress accruing from the introductory teaching being lost.

New Hallo Everybody was found to be the only material adequately meeting these requirements. By agreement with the Västerås education authorities, the experimental classes in groups E1 and K3 were enabled to use this ma-

terial following their introductory studies using the EPAL material*. Various steps were taken to ease the process of transition between the two sets of material. Thus the final part of the EPAL material taken the form of transitional material featuring among other things an introduction of the persons portayed in Hallo Everybody. Supplementary material was also compiled for the revision of certain portions of the content of the EPAL material.

SUBSIDIARY STUDIES UNDER EPAL

As was mentioned in the introduction (page), a number of subsidiary problems with varying degrees of proximity to the general problems of the project could gradually be discerned. Since the EPAL project is concerned with a fairly manifold research task, division into subsidiary studies was a natural recourse.

All of the subsidiary studies are related to the main purpose of the EPAL project, although consideration is also given to separate problems.

The study entitled "Pronunciation measurements under the EPAL project" which is led by Lillemor Lewrén B.A. has an important function to perform in the comprehensive study of the effects of the various English time schedules, because research and debate concerning the early commencement of foreign language study have indicated that it is above all pronunciation that benefits from the early start; cf. Carroll, 1963.

The classroom observations of English teaching conducted under the leadership of Lena Rehnström B.A. are highly important because they have made it possible to chart the actual progress of teaching. The point is that, without a control of what has actually happened during the teaching process, the effects of teaching are difficult to interpret, since the cause of a particular result cannot then be known with any certainty.

Immigrant children are a group which was thought from the very outset to merit special attention. In view of the relatively complex linguis-

* As mentioned previously, the K2 started using New Hallo Everybody in grade 3.

tic situation of immigrant children, consideration has to be given to the problems which may arise due to the early introduction of English teaching.

The study of the introduction of English reading does not have the same direct link with the general purpose of the EPAL project as the other subsidiary studies but was occasioned more by the problems of method which had to be solved during the construction of the EPAL teaching material. Thus a theoretical and highly systematic model for the introduction of reading was developed by the authors of the teaching material. The model was tried out in group E1 and was found to function well (vid. Janson, B. and Sundin, K. The introduction of English reading at junior level, a sub-study under the EPAL project. Department of Educational Research, Uppsala School of Education. Report No. 38, 1973). This investigation was continued with the creation of the LINE project for a closer review of various problems connected with the introduction of reading.

The following brief descriptions of the above mentioned subsidiary studies have been contributed by the various researchers.

PRONUNCIATION MEASUREMENTS UNDER THE EPAL PROJECT
by Lillemor Lewrén

One reason for the early commencement of foreign language studies is that ability to acquire a more native pronunciation is supposed to vary inversely with the age at which the child begins to study the second language. This supposition is partly based upon the numerous observations of immigrant children acquiring a native pronunciation more rapidly than their parents. Hence the interest devoted to measurements of pronunciation for the purposes of the EPAL project. Accordingly one of the anticipated benefits of early English studies concerns the pupils' pronunciation.

The purpose of the pronunciation measurements is to study the pronunciation ability of children taking part in the EPAL project. This is being done

a) through comparative studies of the experimental and control groups, which started English in different grades
b) through longitudinal studies of the pupils' pronunciation development.

Problems

1. Are there any qualitative differences between the pronunciation of children starting English in grade 1 and those starting in grade 3?
2. What exactly is meant by good or bad Englis pronunciation? Can any dif-

ferences be established between the groups in this respect?

3. How does pronunciation develop in the different groups?

Problem 1 will be investigated by means of a global analysis in which the ability of the pupil to pronounce English words and phrases will be assessed by Englishmen in terms of how 'English' the pupils' pronunciation sounds to them.

Problem 2 will be studied by means of a segmental analysis whereby pupils whose pronunciation is rated good or bad in the global analysis will be further analysed with respect to phoneme pronunciation and intonation. The findings thus obtained are expected to show why a particular pronunciation is experienced as good or bad by Englishmen, and can thus be regarded as a criterion analysis.

It may also be possible to relate these findings to the English time allocations for group E and group K respectively.

Problem 3 will be investigated on a longitudinal basis. When all the pronunciation tests have been administered to the experimental and control groups - after grade 6 at the earliest - certain groups from the experimental and control groups respectively will be analysed more closely with reference to different aspects of pronunciation skill. The findings are expected to show how pronunciation develops in different extreme groups and how differences arise between groups as a result of their different ages when introduced, for instance, to new sounds in the foreign language.

The pronunciation measurements from this subsidiary project should lead to the development of educational aids for the teaching of pronunciation.

SYSTEMATIC CLASSROOM OBSERVATIONS UNDER THE EPAL PROJECT

by Lena Rehnström

Background

In many surveys comparing, for instance, different teaching methods, the findings have not been sufficiently relatable to a close knowledge of the actual teaching process.

One of the important concerns of the EPAL project has been to investigate how teaching has actually been arranged in the classroom, i.e. how teacher, pupils and teaching material have interacted. The design of the EPAL project, with its closely steered teaching materials, has provided unique opportunities of carrying out systematic observations. Thus a study has been made of teaching with the same subject matter in E1 and K3, where the pupils are of different ages.

Purpose of the observation studies

1. A comparison of the intensions of the teaching as stated in the teacher's guide for the EPAL material and the actual teaching situation.

   In these observation studies, the plan is to compare teaching in E1 and K3 during a series of seven lessons.

2. Does the teaching situation in which the EPAL material is used differ from a teaching situation involving the use of conventional teaching material?

3. How do various frame factors influence the way in which teachers design their instruction? There may conceivably be variations of teaching style despite the use of closely steered teaching material. Variations of this kind may be caused by the interaction of factors on the part of teachers, pupils and the external environment.

4. The development of a methodology for observation studies. As mentioned earlier, the survey situation is well demarcated in terms of subject matter, survey groups and mode of instruction, and this has led to the development of a methodology for observation studies of closely steered teaching materials.

IMMIGRANT CHILDREN AND THE TEACHING OF FOREIGN LANGUAGES UNDER THE EPAL PROJECT

by Lennart Linell

Immigrant children were a group which it was initially expected could present problems in the EPAL project. There was the possibility of these children encountering linguistic problems as a result of being introduced to another language besides Swedish while they were only in grade 1. For some pupils the resultant situation would be so complicated that they would have to negotiate four different languages. On the other hand it could be said that the new foreign language was a field of knowledge in which immigrant children and Swedish children were equally placed and where immigrant children would also be able to hold their own, instruction being provided exclusively in the new language.

The purpose of this subsidiary study under the EPAL project can therefore be said to be the same as that of the project as a whole, namely a comprehensive investigation of the effects of arrangements involving different time allocations, though in this case attention is confined to immigrant children, a longitudinal study being made of their school achievements in Swedish and mathematics and of any changes in their attitudes to different subjects and to school generally.

The survey group can be defined in various ways, depending on the purpose involved. For the purpose of this study, the following definition has been adopted: "Immigrants are persons living in, Sweden who were born abroad, or persons living here, born here but having one or two parents born in another country."

With this definition, all pupils who can be expected in any way to be linguistically affected by encountering several languages during their childhood and adolescence have been included in the survey group. For purposes of further analysis it will then be possible, using other criteria, to select smaller groups with special living conditions.

LEARNING TO READ ENGLISH (LINE, SÖ Project No. 249)

by Bo Janson

When reading was introducted in the EPAL project experimental group in the autumn term of 1972, an evaluation was undertaken of the model which had been constructed for this purpose*.

As work on the interpretation of the findings proceeded, several issues arose which in turn led Bo Janson to embark on a closer study of the process of learning to read, with particular emphasis on what could be relevant to the process of learning to read a second language at elementary school level.

The main purpose of the study carried out in Västerås during the autumn of 1973 was to investigate the importance of the pupils being enabled in speech practice to make active use of the words and phrases which they subsequently encounter in writing. A presumed effect of this kind may be general or else specific to certain groups of pupils. It is possible, for instance, that speech practice is only important to pupils with a poor audiolingual command of the language or to pupils who have had difficulty in learning to read their native language. The effects may conceivably be manifested in performance regarding reading comprehension or reading aloud, and also in attitudes to reading instruction.

One practical aim of this study is to arrive at conclusions concerning the design of teacher education and the construction of materials for the teaching of foreign languages as elementary level, with particular regard to the encounter of linguistic low performers with the printed word.

The analysis so far made of the measurements carried out in Västerås during the autumn of 1973 have not yielded any uneqivocal results. Further processing and analysis are in progress, and the findings obtained will be presented in the final report which is now in preparation.

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* The results of this evaluation have been presented in Janson-Sundin, 1973

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